

REMARKS/ARGUMENTS

Claims 1-5, 7-18, and 20-27 are currently pending in the present application. The Examiner has rejected claims 1-5, 7, 10 and 25 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. The Examiner has rejected claims 10, 11, 13, 14, 17, 18 and 26 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,154,776 to Martin in view of U.S. Patent No. 6,952,735 to Aune and U.S. Patent No. 6,546,415 to Park. Claims 15 and 16 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Martin, Aune, and Park in further view of alleged Applicant Admitted Prior Art. Claims 1-5, 7-9, 12, 20-22, 25 and 27 have been rejected as allegedly being obvious over Martin, Aune, Park and U.S. Patent No. 6,128,713 issued to Eisler et al. Claims 23 and 24 have also been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Martin, Aune, Park, and Eisler in further view of U.S. Patent Publ. No. 2002-0194326 to Gold et al.

Applicant traverses the foregoing rejections. Applicant has amended the claims to address the rejection under 35 U.S.C. § 112, second paragraph, and therefore respectfully requests withdrawal of the instant rejection.

Independent Claims 1, 8, 10, 11, 20, 25 and 26 are Allowable over the Proposed Martin-Aune-Park Combination

A. The Proposed Combination Fails to Disclose, Teach, or Suggest Limitations Recited in the Independent Claims

To establish a prima facie case of obviousness, "the prior art must teach or suggest all the claim limitations." MPEP § 2143; see also MPEP § 2143.03 ("To establish

prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.").

As to the independent claims, the Examiner primarily relies on the combination of Martin, Aune and Park to reject the claims. However, the cited prior art, neither individually nor in combination, discloses the claimed subject matter.

The claimed subject matter is directed to methods and apparatuses involving a dynamic partition object "having at least one attribute defining a first allocation of a network resource across all data flows corresponding to the at least one dynamic partition, and a second attribute defining allocations of the network resource within the first allocation." See, e.g., claims 1, 10, 11, 20 and 25, above. The claimed subject matter is also directed to dynamically creating user partition objects in response to new users. Claims 8 and 26 include a traffic classification component, in that data flows are matched to a traffic classification, which in turn maps to a dynamic partition object. New user partition objects are created as child partitions of the dynamic partition in response to new users.

The proposed Martin-Aune-Park combinations fails to establish a *prima facie* case of obviousness as the proposed combination does not teach or suggest all claim limitations. For example, the Examiner admits that Martin fails to disclose a dynamic partition having a first allocation, and that defines user partitions each defining allocations within the first allocation.¹ Office Action at 3. The Examiner relies on Aune as allegedly teaching the claimed subject matter. Aune, however, comes nowhere near the subject matter of the claims. Rather, Aune merely discloses a method of managing and distributing pools of IP addresses in a GPRS network. That is, a global processor

¹ The Examiner also implicitly admits that Martin fails to disclose mapping dynamic partitions to data flows based on corresponding traffic classes.

operates in connection with an array of other external processors. The global processor hands out "packs of IP addresses" to the external processors, which can then provide the IP addresses to requesting clients. Park merely discloses an SNMP-based system for remotely managing network elements in a distributed computing system. The SNMP agents are configured in a hierarchy with a master agent communicating with a network manager. The '415 patent also discloses a SNMP MIB implemented as a hierarchical file system (resembling a pathname) to facilitate identification of the relationships among the network elements in the hierarchy.

Moreover, neither Aune nor Martin disclose an attribute that defines a first allocation of a network resource across all data flows corresponding to the at least one dynamic partition. Rather, as discussed in previous office actions, Martin merely discloses mapping data flows to QoS definitions. However, as the Examiner admits, the QoS definitions apply to individual flows, and do not apply across all data flows corresponding to the at least one dynamic partition, as disclosed and claimed. As discussed above, Aune merely discloses a system that allocates pools of IP addresses to external processors. However, the pools of IP addresses in Aune are not a "first allocation of a network resource across all data flows corresponding to the at least one dynamic partition."

Still further, neither Aune nor Martin disclose dynamically creating user partition objects as disclosed and claimed. Aune, in contrast, discloses a system utilizing a pool of pre-established IP addresses. Rather than being created in response to new users, the system of Aune merely assigns a pre-existing IP address from the pool. As discussed above (and as the Examiner admits), Martin fails to disclose dynamically creating user partition objects including a second allocation defined by a

dynamic partition object.

Furthermore, as to claim 8 and 26, the reasoning underlying the Examiner's rejection is internally inconsistent and not well founded.² Specifically, in rejecting claim 10, the Examiner alleges that QoS definitions in Martin are "user partition objects." See Office Action at 3. However, in rejecting claim 26, the Examiner now alleges that the QoS definitions of Martin are dynamic partition objects. See Office Action at 6. The Examiner can not have it both ways, and further does not explain how the QoS definitions of Martin could be modified by the teachings of Aune to achieve the claimed subject matter.

Still further, the proposed Martin-Aune-Park combination does not disclose the claimed subject matter of claims 8 and 26. In claim 8, for example, a partitioning mechanism is operative to "identify a new data flow and the traffic class associated with the data flow," while a partition management module is operative to "identify the dynamic partition object associated with the traffic class of the new data flow; identify a new user based on one or more attributes of at least one packet of the data flow; and dynamically create a user partition object in the partition object space in response to an identification of a new user according to the attributes of the dynamic partition object associated with the new data flow." Neither Martin nor Aune disclose these concepts. Rather in Martin, an IP address (user) is identified, and data flows of that user are mapped to a QoS definition. See Martin, Col. 11, lines 50-56. In claims 8 and 26, a traffic class for a data flow is identified to map the flow to a dynamic partition, while a new user partition object is created (as disclosed and claimed) in response to detection

² Indeed, as to claim 8, the Examiner again fails to address all claim limitations, merely stating that "these claims are rejected for the same reason as claims 1-2 above." See Office Action at 8. However, the Examiner has failed to appreciate that claim 8 includes limitations not found in claims 1 or 2.

of a new user associated with the data flow. The teachings of Aune are simply inapposite and cannot be combined with Martin, Park or the other cited references to teach of suggest the subject matter of claims 8 and 26. Furthermore, beyond merely alleging that Martin could be modified with the teachings of Aune, the Examiner fails to specifically indicate how one of ordinary skill in the art would have created the claimed combination, see below.

B. The Examiner has Failed to Properly Establish a Prima Facie Case of Obviousness With Respect to the Proposed Combination

Applicants respectfully submit that the rejection of independent claims 1, 8, 10, 11, 20, 25 and 26 based on the proposed Martin-Aune-Park combination is improper because the Examiner has not shown the required teaching, suggestion, or motivation in Martin, Aune, Park, or in the knowledge that was generally available to those of ordinary skill in the art at the time of the invention to combine Martin, Aune, and Park with each other as proposed.

The question raised under 35 U.S.C. § 103 is whether the prior art taken as a whole would suggest the claimed invention taken as a whole to one of ordinary skill in the art at the time of the invention. Accordingly, even if all elements of a claim are disclosed in various prior art references, which is certainly not the case here as discussed above, the claimed invention taken as a whole cannot be said to be obvious without some reason given in the prior art why one of ordinary skill at the time of the invention would have been prompted to modify the teachings of a reference or combine the teachings of multiple references to arrive at the claimed invention.

The M.P.E.P. sets forth the strict legal standard for establishing a prima facie case of obviousness based on modification or combination of prior art references. "To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references where combined) must teach or suggest all the claim limitations." M.P.E.P. § 2142, 2143. The teaching, suggestion, or motivation for the modification or combination and the reasonable expectation of success must both be found in the prior art and cannot be based on an applicant's disclosure. See *Id.* (citations omitted). "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art" at the time of the invention. M.P.E.P. § 2143.01. Even the fact that references can be modified or combined does not render the resultant modification or combination obvious unless the prior art teaches or suggests the desirability of the modification or combination. See *Id.* (citations omitted). Moreover, "To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. All words in a claim must be considered in judging the patentability of that claim against the prior art." M.P.E.P. § 2143.03 (citations omitted).

The governing Federal Circuit case law makes this strict legal standard even more clear.³ According to the Federal Circuit, “a showing of a suggestion, teaching, or motivation to combine or modify prior art references is an essential component of an obviousness holding.” *In re Sang-Su Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433 (Fed. Cir. 2002) (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d 1456, 1459 (Fed. Cir. 2000)). “Evidence of a suggestion, teaching, or motivation . . . may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, the nature of the problem to be solved.” *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). However, the “range of sources available . . . does not diminish the requirement for actual evidence.” *Id.* Although a prior art device “may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so.” *In re Mills*, 916 F.2d at 682, 16 U.S.P.Q.2d at 1432. See also *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998) (holding a *prima facie* case of obviousness not made where the combination of the references taught every element of the claimed invention but did not provide a motivation to combine); *In Re Jones*, 958 F.2d 347, 351, 21 U.S.P.Q.2d 1941, 1944 (Fed. Cir. 1992) (“Conspicuously missing from this record is any evidence, other than the PTO’s speculation (if that can be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modification of the prior art salts necessary to arrive at” the claimed invention.). Even a determination that it would have been obvious to one of ordinary skill in the art at the time of the invention to try the proposed modification or combination is not sufficient to establish a *prima facie*

³ Note M.P.E.P. 2145 X.C. (“The Federal Circuit has produced a number of decisions overturning obviousness rejections due to a lack of suggestion in the prior art of the desirability of combining references.”).

case of obviousness. See *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1599 (Fed. Cir. 1988).

In addition, the M.P.E.P. and the Federal Circuit repeatedly warn against using an applicant's disclosure as a blueprint to reconstruct the claimed invention. For example, the M.P.E.P. states, "The tendency to resort to 'hindsight' based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art."

M.P.E.P. § 2142. The governing Federal Circuit cases are equally clear. "A critical step in analyzing the patentability of claims pursuant to [35 U.S.C. § 103] is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. . . .

Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one 'to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher.'" *In re Kotzab*, 217 F.3d 1365, 1369, 55 U.S.P.Q.2d 1313, 1316 (Fed. Cir. 2000) (citations omitted). In *In re Kotzab*, the court noted that to prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. See *id.* See also, e.g., *Grain Processing Corp. v. American Maize-Products*, 840 F.2d 902, 907, 5 U.S.P.Q.2d 1788, 1792 (Fed. Cir. 1988). Similarly, in *In re Dembiczak*, the Federal Circuit reversed a finding of obviousness by the Board, explaining that the required evidence of such a teaching, suggestion, or motivation is essential to avoid impermissible hindsight reconstruction of an applicant's invention:

Our case law makes clear that the best defense against the subtle but powerful attraction of hind-sight obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.

175 F.3d at 999, 50 U.S.P.Q.2d at 1617 (emphasis added) (citations omitted).

Applicants respectfully submit that the rejection of independent claims 1, 8, 10, 11, 20, 25 and 26 based on the proposed combinations in the present Office Action is improper, under the M.P.E.P. and governing Federal Circuit cases. In fact, nowhere does the Examiner demonstrate, with respect to the proposed combination, that Martin, Aune, Park, or knowledge generally available to a person having ordinary skill in the art at the time of the invention would have provided any teaching, suggestion, or motivation whatsoever to make the proposed combination. As an example, the Examiner merely states that one would have been motivated to combine Martin and Aune with each other because, according to the Examiner, using Aune in Martin "would further enhance the resource management mechanism of Martin by releasing unused resources due to resource limitation [sic]." See Office Action at 4.

Examination of Martin and Aune, however, reveals that the Examiner's reasoning falls short. First off, as discussed above, Martin merely teaches mapping QoS definitions to data flows; however, Martin does not teach that these QoS definitions establish reservations or allocations for data flows in a manner that would require them to be released for other data flows. Rather, the QoS definitions merely define "the bandwidth to be applied, . . . , characteristics of a firewall, and so on." See Martin, Col.

10, lines 40-46. In other words, no teaching in Martin suggests that a QoS definition in Martin needs to be released for subsequent data flows or users.

Moreover, nowhere does the Examiner demonstrate that a person having ordinary skill in the art at the time of the invention would have reasonably expected the proposed combination to achieve the purported results. First, nowhere does the Examiner demonstrate that the proposed combination would have in fact produced the purported results. For example, nowhere does the Examiner even attempt to demonstrate that the combination of the cited teachings in Martin with the IP address pooling system of Aune would have achieved the purpose of "releasing unused resources due to resource limitation." In addition, even assuming for the sake of argument that the proposed combination would have produced the purported results, nowhere does the Examiner demonstrate that a person having ordinary skill in the art at the time of the invention would have reasonably expected such results. As an example, the Examiner merely asserts that combining the system of Martin with the teachings of Aune would have achieved the alleged purpose, without even attempting to demonstrate that a person having ordinary skill in the art at the time of the invention would have reasonably expected such result. If the Examiner intends to rely on information that was generally available to a person having ordinary skill in the art at the time of the invention to demonstrate that the purported results of the proposed combination would have been expected by a person having ordinary skill in the art at the time of the invention, Applicant respectfully requests that the Examiner provide documentary evidence that such information was in fact generally available to a person having ordinary skill in the art at the time of the invention, as required by the M.P.E.P. and governing Federal Circuit case law.

For at least these reasons, Applicants respectfully submit that the Examiner has not established a prima facie case of obviousness against independent claims 1, 8, 10, 11, 20, 25 and 26. Applicants respectfully request reconsideration and allowance of independent claims 1, 8, 10, 11, 20, 25, 26, and all their dependent claims.

Furthermore, as to claims 23 and 24, the cited prior art fails to disclose or suggest the configuration of user partition caps and the user of overflow partitions when the user partition cap is exceeded. Claim 24 has been previously amended to state that new users are automatically assigned the overflow partition. Gold teaches a system where manual intervention is required to temporarily allow access when the new user capacity limit is exceeded. Gold at paragraph 73. Moreover, Gold does not teach or suggest assigning new users, after the user partition cap is exceeded, to the an overflow partition wherein the overflow partition defines an aggregate allocation of the network resource for data flows associated with users assigned to the overflow partition. In other words, unlike Gold, where it appears that all users are assigned the same type of access after the capacity limit is exceeded, new users are assigned respective user partitions, until the user partition cap is exceeded. At that point, all new users are assigned and, therefore share, the resources allocated to the overflow partition.

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In light of the foregoing, Applicant believes that all currently pending claims are presently in condition for allowance. Applicant respectfully requests a timely Notice of Allowance be issued in this case. If the Examiner believes that any further action by Applicant is necessary to place this application in condition for allowance, Applicants request a telephone conference with the undersigned at the telephone number set forth below.

Date: November 13, 2006

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